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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/923,094 | 08/06/2001 | Erik Lindgren | AN06161US/0151 | 9445 |

7590

07/16/2003

Richard P. Fennelly
Akzo Nobel Inc.
7 Livingstone Avenue
Dobbs Ferry, NY 10522-3408

EXAMINER

CHIN, PETER

ART UNIT

PAPER NUMBER

1731

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/923,094

Applicant(s)

LINDGREN ET AL.

Examiner

Peter Chin

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-78 is/are pending in the application.
- 4a) Of the above claim(s) 32-44, 53-60 and 70-78 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31, 45-52 and 61-69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 32-44, 53-60 and 70-78 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 7.

Note that the withdrawn claims claim a sizing dispersion containing both anionic and cationic polymer, which is outside the elected species of anionic size dispersion containing anionic naphthalene sulfonate condensation polymer.

2. Applicant's election with traverse of species in Paper No. 7 is acknowledged. The traversal is on the ground(s) that it is not a burden to search all the species. This is not found persuasive because it is a burden to search the enormous number of combination of species.

The requirement is still deemed proper and is therefore made FINAL.

3. Claims 1-8, and 13-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hallstrom et al (WO 9833980) or Frolich et al (WO9833979) in view of Begala (5,595,629)

Hallstrom et al or Frolich et al disclose a process for sizing paper in which a sizing dispersion which preferably has an overall anionic charge (page 9 of each reference) is added to the aqueous pulp stock. The anionic dispersant is condensed naphthalene sulfonate, page 4. The present claims by virtue of the "comprising" language are open to the cationic compounds of Hallstrom et al size dispersion.

Conventional retention system is used and includes ones which use cationic and anionic polymers, last paragraph, page 10 of each reference.

Begala teaches a retention system using cationic polymer based on DMAEA.BCQ (benzyl containing) and naphthalene sulfonate formaldehyde condensate is very effective in pulp stocks containing sizing agents (column 4) and other standard papermaking ingredients.

Thus it would have been obvious to employ the retention system of Begala as the retention system in Hallstrom et al in view of its superior performance. While the claimed cationic and anionic polymer has been characterized and claimed as a "sizing promoter" there is no further limitation in the claims to distinguish over the aforesaid polymers in the retention system in Begala.

4. Claims 9-12,19-22,45-52 and 61-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hallstrom et al (WO 9933980) or Frolich et al (WO 9833979) in view of Begala (5,595,629) as applied to claims above, and further in view of Persson et al (WO 9955964).

Persson et al teaches that the use of a cationic polysaccharide including starch containing hydrophobic aromatic groups advantageously increases the strength of paper. It also has the added benefit that when used in conjunction the retention systems that use cationic and anionic polymers, further improvements in retention is realized last paragraph, page 5. It is compatible with sizing agents, page 10, penultimate paragraph

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Chin whose telephone number is (703) 308-2046. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (703) 308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

A handwritten signature in black ink, appearing to read 'Peter Chin', with a long horizontal flourish extending to the right.

Peter Chin
Primary Examiner
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